



measuring distance to ground such as an ultrasonic transducer can be added to provide more precise altitude readings during the final stages of landing. Position sensors for the engine and flight controls can also be added. A video camera can also be mounted inside the cockpit area and with the aid of digital video compression, the most recent images of a flight can be recorded in memory. For the wireless data transceiver, Bluetooth technology, the emerging standard for short range communications, can also be used. Instead of radio frequency, infrared techniques such as the one described by the IrDA standard can also serve as the wireless medium. As far as the host computer is concerned, a hand-held personal digital assistant, such as a Palm Pilot with the appropriate application software, can also be used.

Accordingly, the scope of the invention should be determined not by the embodiment illustrated, but by the appended claims and their legal equivalents.

Abstract

A flight data recorder designed for small aircraft captures various onboard flight data in real-time and stores it in non-volatile memory. Recorded data includes aircraft's instantaneous position, altitude, attitude, engine RPM, G forces, flap position, cockpit voice and others. These data are obtained from various sensors which are integrated into the recorder. At the end of a flight the recorded data is downloaded into a computer using a wireless communications data transceiver also integrated into the recorder. It is an inexpensive system that does not require interfacing to any of the aircraft's instruments. It does not require removal or attaching any equipment to be able to download data. In addition to accident investigation, applications include training, preventive maintenance and asset monitoring.

Claims

What is claimed is:

1. A flight data recording system comprising:

a single apparatus installed on board an aircraft further comprising: